

2.0 NATURAL COMMUNITIES, EVALUATED SPECIES, AND BASELINE CONDITIONS

2.1 NATURAL COMMUNITIES EVALUATED IN THE MULTI-SPECIES CONSERVATION STRATEGY

The ERP and this MSCS have been developed to conserve natural communities and the species that depend on them. The two documents provide the information needed for a programmatic NCCP for 20 natural communities—18 habitats and two ecologically based fish groups. When the term “NCCP communities” appears in the MSCS, it refers to both habitats and fish groups. “NCCP habitat” refers to one of the 18 habitats identified below.

2.1.1 NCCP HABITATS

The 18 NCCP habitats are broad categories. Each includes several habitat or vegetation types recognized in frequently used classification systems. The following criteria were used to develop the list of NCCP habitats:

- level of acceptance of habitat nomenclature within the scientific community,
- consistency with existing electronically mapped habitat data,
- potential for habitat types to be affected by CALFED actions, and
- consistency with existing CALFED habitat nomenclature from the ERP.

The 18 NCCP habitats are defined such that CALFED could use existing geographic information system (GIS) data to estimate the location and size of the habitats, and could compare this information with ERP habitat restoration and enhancement targets.

CALFED consulted the following sources, which describe methods used to classify habitats, when it developed the habitat classification for the MSCS:

- Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979),
- Classification for California’s Inland Waters (Moyle and Ellison 1991),

- Preliminary Descriptions of Terrestrial Natural Communities of California (Holland 1986),
- The California Wildlife Habitat Relationship System (Mayer and Laudenslayer 1988),
- A Manual of California Vegetation (Sawyer and Keeler-Wolf 1995),
- Ecosystem Restoration Program Plan (CALFED Bay-Delta Program 1999b), and
- Development of Key Ecological Attributes for the San Francisco Bay-Delta Watershed (CALFED Ecosystem Restoration Indicators Group, n.d.).

The MSCS technical report “Correlation of NCCP Habitats with Other Classification Systems” explains the NCCP habitats and commonly used habitat classification systems. The following are the 18 NCCP habitats evaluated in the MSCS:

Tidal Perennial Aquatic. Tidal perennial aquatic habitat is defined as deepwater aquatic (greater than 3 meters deep from mean low low tide), shallow aquatic (less than or equal to 3 meters deep from mean low low tide), and unvegetated intertidal (i.e., tideflats) zones of estuarine bays, river channels, and sloughs. Tidal perennial aquatic includes all or portions of the ERP tidal perennial aquatic, tidal and Delta sloughs, and midchannel island and shoals habitat.

Valley Riverine Aquatic. Valley riverine aquatic habitat includes the water column of flowing streams and rivers in low-gradient channel reaches below an elevation of approximately 300 feet that are not tidally influenced. This includes associated shaded riverine aquatic (SRA), pool, riffle, run, and unvegetated channel substrate (including seasonally exposed channel bed) habitat features, and sloughs, backwaters, overflow channels, and flood bypasses hydrologically connected to stream and river channels. Valley riverine aquatic habitat includes portions of the ERP riparian and riverine aquatic habitat.

Montane Riverine Aquatic. Montane riverine aquatic habitat includes the water column of flowing streams and rivers above an elevation of approximately 300 feet. This includes associated SRA, pool, riffle, run, and unvegetated channel substrate (including seasonally exposed channel bed) habitat features, and sloughs, backwaters, and overflow channels hydrologically connected to stream and river channels. Montane riverine aquatic habitat includes portions of the ERP riparian and riverine aquatic habitat.

Lacustrine. Lacustrine habitat is defined as portions of permanent bodies of water that do not support emergent vegetation and that are not subject to tidal exchange, including lakes, ponds, oxbows, gravel pits, and flooded islands. Lacustrine habitat includes portions of the ERP nontidal perennial aquatic habitat.

Saline Emergent. Saline emergent habitat includes the portions of San Francisco, San Pablo, and Suisun Bays and the Delta that support emergent wetland plant species that are tolerant of saline or brackish conditions within the intertidal zone or on lands that historically were

subject to tidal exchange (i.e., diked wetlands). Saline emergent habitat includes all or portions of the ERP saline emergent wetland tidal and Delta sloughs, and midchannel islands and shoals habitats.

Tidal Freshwater Emergent. Tidal freshwater emergent habitat includes portions of the intertidal zones of the Delta that support emergent wetland plant species that are not tolerant of saline or brackish conditions. Tidal freshwater emergent habitat includes all or portions of the ERP fresh emergent wetland tidal and Delta sloughs, and midchannel islands and shoals habitats.

Nontidal Freshwater Permanent Emergent. Nontidal freshwater permanent emergent includes permanent (natural and managed) wetlands, including meadows, dominated by wetland plant species that are not tolerant of saline or brackish conditions. Nontidal freshwater permanent emergent habitat includes all or portions of the ERP fresh emergent wetland (nontidal) and nontidal perennial aquatic habitat to be restored within nontidal freshwater permanent emergent wetlands.

Natural Seasonal Wetland. Natural seasonal wetland habitat includes vernal pools and other nonmanaged seasonal wetlands with natural hydrologic conditions that are dominated by herbaceous vegetation and that annually pond surface water or maintain saturated soils at the ground surface for enough of the year to support facultative or obligate wetland plant species. Alkaline and saline seasonal wetlands that were not historically part of a tidal regime are included in natural seasonal wetlands. Natural seasonal wetland habitat includes ERP vernal pool habitat.

Managed Seasonal Wetland. Managed seasonal wetland habitat includes wetlands dominated by native or non-native herbaceous plants, excluding croplands farmed for profit (e.g., corn and rice), that land managers flood and drain during specific periods to enhance habitat values for specific wildlife species. Ditches and drains associated with managed seasonal wetlands are included in this habitat type. Managed seasonal wetland habitat includes the ERP seasonal wetlands habitat.

Valley/Foothill Riparian. Valley/foothill riparian habitat includes all successional stages of woody vegetation, commonly dominated by willow, Fremont cottonwood, valley oak, or sycamore, within the active and historical floodplains of low-gradient reaches of streams and rivers generally below an elevation of 300 feet. Valley/foothill riparian habitat includes portions of the ERP riparian and riverine aquatic habitat.

Montane Riparian. Montane riparian habitat includes all successional stages of woody vegetation, such as willow, black cottonwood, white alder, birch, and dogwood, within the active floodplains of moderate-to-high-gradient reaches of streams and rivers generally above an elevation of 300 feet. Montane riparian habitat includes portions of the ERP riparian and riverine aquatic habitat.

Grassland. Grassland habitat includes upland vegetation communities dominated by introduced and native annual and perennial grasses and forbs, including nonirrigated and irrigated pasturelands. Grassland habitat includes all the ERP perennial grassland habitat and the much more extensive annual grassland vegetation that is not addressed in the ERP.

Inland Dune Scrub. Inland dune scrub habitat comprises vegetated stabilized sand dunes associated with river and estuarine systems. Inland dune scrub includes all the ERP inland dune scrub habitat.

Upland Scrub. Upland scrub habitat includes habitat areas dominated by shrubs characteristic of coastal scrub, chaparral, and saltbush scrub communities. Upland scrub is not included in the ERP.

Valley/Foothill Woodland and Forest. Valley/foothill woodland and forest habitat includes nonriparian forest, woodland, and savanna of valleys and foothills. These vegetation communities are commonly dominated by valley oak, blue oak, interior live oak, coast live oak, and foothill pine. Valley/foothill woodland and forest habitat is not included in the ERP.

Montane Woodland and Forest. Montane woodland and forest habitat includes nonriparian forest and woodland above the foothills. These vegetation communities are commonly dominated by pine, fir, cedar, and black oak. Montane woodland and forest habitat is not included in the ERP.

Upland Cropland. Upland cropland habitat includes agricultural lands farmed for grain field, truck, and other crops for profit that are not seasonally flooded. Upland cropland is included in the ERP as agricultural lands.

Seasonally Flooded Agricultural Land. Seasonally flooded agricultural land habitat includes agricultural lands farmed for grain, rice, field, truck, and other crops for profit that require seasonal flooding for at least 1 week at a time as a management practice (e.g., for pest control and irrigation) or are purposely flooded seasonally to enhance habitat values for specific wildlife species (e.g., ducks for duck clubs). Agricultural ditches and drains associated with maintaining seasonally flooded agricultural land are included in this habitat type. Seasonally flooded agricultural land is included in the ERP as agricultural lands.

2.2 NCCP FISH GROUPS

The MSCS evaluates two fish groups, anadromous and estuarine species. Table 2-1 identifies the species included in each group and the NCCP habitats with which they are associated. Nonestuarine NCCP aquatic habitats that some estuarine fish species use during some periods are included in this evaluation. These fish groups are addressed separately from NCCP habitats because they cannot be addressed adequately in an evaluation of NCCP habitats, which are based primarily on vegetation, land use, and geography.

The evaluation of NCCP fish groups addresses potential CALFED effects on the dynamic factors that support fish populations, such as water flow, depth, temperature, quality, and seasonal fluctuations in stage and flow. This evaluation also analyzes potential effects on the habitats with which these fish groups are associated. Fishes included in NCCP fish groups are those that:

- will be most affected by CALFED water storage, conveyance, and water operations actions;
- depend on the Bay-Delta ecosystem; and
- are subject to established USFWS, NMFS, and DFG recovery goals.

Table 2-1. Fish Group Species and Associated NCCP Habitats

| Fish Group | Included Species | NCCP Habitat Types |
|-------------------------|---|--|
| Anadromous fish species | Sacramento River winter-run chinook salmon, Central Valley fall-/late-fall-run chinook salmon, Central Valley spring-run chinook salmon, Central Valley steelhead, and Central California Coast steelhead evolutionarily significant units (ESUs); green sturgeon | Tidal perennial aquatic, valley riverine aquatic, montane riverine aquatic, lacustrine, saline emergent, and tidal freshwater emergent |
| Estuarine fish species | Tidewater goby, delta smelt, longfin smelt, Sacramento splittail, and Sacramento perch | Tide perennial aquatic, valley riverine aquatic, lacustrine, saline emergent, and tidal freshwater emergent |

2.3 SPECIES EVALUATED IN THE MULTI-SPECIES CONSERVATION STRATEGY

Pursuant to Section 7(c) of FESA, CALFED asked USFWS, NMFS, and DFG to provide information about any species listed or proposed for listing as threatened or endangered, including designated or proposed critical habitats under FESA and CESA, that may be present in the MSCS Focus Area (Figure 1-1). Additionally, CALFED, USFWS, NMFS, and DFG developed a list of special-status species known to occur or with the potential to occur within the Focus Area. This list did not include species affected only indirectly by CALFED within the service areas and watershed planning areas; these species will require additional analysis (see Chapter 4, "Effects of CALFED Actions and Conservation Measures").

Special-status species include those that fit into at least one of the following categories:

- listed as threatened or endangered under FESA;
- proposed for listing under FESA;
- candidates for listing under FESA;
- listed as threatened or endangered under CESA;
- candidates for listing under CESA;
- plants listed as rare under the California Native Plant Protection Act;
- fully protected species or specified birds under various sections of the California Fish and Game Code;
- California species of special concern (CSC);
- plants included on California Native Plant Society (CNPS) List 1A, 1B, 2, or 3; or
- other native species of concern to CALFED.

More than 400 special-status fish, wildlife, and plant species were identified as known or with the potential to occur within the MSCS Focus Area and at potential reservoir sites. CALFED generated this preliminary species list from electronic databases of known occurrences of special-status species (DFG's Natural Diversity Data Base and CNPS's Inventory of Rare and Endangered Plants), and wildlife biologists and botanists looked for potentially occurring species based on known range and habitat requirements. CALFED worked with teams of biologists with specific expertise to refine the list to 244 species that are evaluated in the MSCS. Species evaluated in the MSCS meet at least one of the following criteria:

- The species is federally listed as threatened or endangered or State listed as rare, threatened, endangered, or fully protected.
- The species could become federally or State listed during the term of CALFED implementation (at least 30 years), and CALFED actions could adversely affect it.
- CALFED actions could affect important habitat or a substantial portion of the species' range.

Under the first criterion, all federal and California listed species known or with the potential to occur in the Focus Area are included for evaluation.

Under the second criterion, species with the potential to become federally or State listed during CALFED implementation are:

- species proposed for listing under FESA;
- candidates for listing under FESA;
- candidates for listing under CESA; or
- California species of special concern, specified birds, CNPS List 1 and List 2 species, and other species of concern, if:
 - CALFED actions could affect a substantial portion of the species' range or important habitat, or
 - the species is especially rare or its distribution is limited.

Under the third criterion, important habitat identified included breeding and roosting habitat for various species evaluated in the MSCS. Table 2-2 lists species from the Focus Area and potential reservoir sites that are evaluated in the MSCS. The MSCS technical report "Species Accounts for Multi-Species Conservation Strategy Evaluated Species" provides ecological and status information on evaluated species.

Attachment A, "Species Considered for Inclusion in the Multi-Species Conservation Strategy but Not Evaluated", identifies species that did not meet the criteria for evaluation in the MSCS. Although these species are not explicitly evaluated, they could benefit from implementation of ERP actions and MSCS conservation measures that have a positive effect on their habitats.

2.4 COVERED SPECIES

Based on the MSCS, the ERP, and other relevant parts of CALFED (e.g., CMARP, the WMS, and the EWA), USFWS, NMFS, and DFG will each identify a list of "covered species". Each agency's list of covered species will differ according to its jurisdiction and applicable statutory standards. Federally covered species are federally listed and proposed species identified by USFWS and NMFS in the programmatic biological opinions. State-covered species are species identified by DFG in the programmatic NCCP determination.

USFWS and NMFS share responsibility for administering FESA. Under Reorganization Plan No. 4 of 1970, NMFS has primary responsibility for implementing FESA with respect to marine fishes and mammals, including migratory or anadromous fish species such as salmon and steelhead; USFWS has primary responsibility for virtually all other species. Accordingly, under the applicable FESA standard, USFWS will identify any federally listed or proposed evaluated species (other than anadromous fish species) as a federally covered species if CALFED is not likely to jeopardize the species' continued existence or to result in the destruction or adverse modification of habitat critical to the species. Using the same standard, NMFS will identify federally covered species among the federally listed or proposed evaluated species that are anadromous fish species.

In accordance with its broad jurisdiction over plants, fish, and wildlife within California, and under the standards in NCCPA, DFG will identify as a State-covered species any evaluated species that will be "adequately conserved" under the MSCS. If the MSCS and ERP will not significantly increase or enhance the habitat of an evaluated species, that species is likely to be excluded from DFG's State-covered species list. DFG may include CESA listed and unlisted species as State-covered.

USFWS and NMFS will identify federally covered species from the MSCS evaluated species list in their respective programmatic biological options. DFG will identify State-covered species from the MSCS evaluated species list in its programmatic NCCP determination. Species for which USFWS, NMFS, and DFG determine CALFED will not achieve applicable FESA and NCCPA standards will not be included as State-covered or federally covered species.

Covered species will include species for which take authorization could be issued for actions that follow the MSCS compliance process (see Chapter 6, "Compliance with the Federal and California Endangered Species Acts and Natural Community Conservation Planning Act"). They may include other species for which take cannot be issued. For example, direct mortality of extremely rare species will not be authorized. In addition, incidental take will not be authorized where prohibited by certain laws other than FESA or CESA, such as the State fully protected species statutes (California Fish and Game Code Sections 3511, 4700, 5050, and 5515).

2.5 CRITICAL HABITAT

FESA designated critical habitat for several listed evaluated species is present in the MSCS Focus Area (Table 2-2). All or portions of the Delta are designated critical habitat for several listed fish species (e.g., delta smelt). Portions of the Sacramento River and its tributaries are also designated as critical habitat for several anadromous fishes (e.g., the Sacramento River winter-run chinook salmon). Pursuant to FESA requirements, the MSCS also analyzes potential effects of CALFED on FESA designated critical habitats located in the Focus Area.

2.6 EXISTING BASELINE CONDITIONS

The analysis of potential CALFED effects on NCCP communities and evaluated species presented in Chapter 4 was conducted by comparing habitat conditions and species populations under existing conditions to expected future-with-project conditions. The existing conditions baseline for NCCP communities used to conduct the analysis is described in Chapters 6.1 and 6.2 of the Programmatic EIS/EIR, “Fisheries and Aquatic Ecosystems” and “Vegetation and Wildlife”. The existing baseline conditions for evaluated species are described in individual species accounts in the MSCS technical report “Species Accounts for Multi-Species Conservation Strategy Evaluated Species”.

Table 2-2. Species and FESA Designated Critical Habitats Evaluated in the Multi-Species Conservation Strategy

Multi-Species Conservation Strategy User Guide

This table presents the species and FESA designated critical habitats evaluated in the Multi-Species Conservation Strategy (MSCS) and describes the criteria used to select the evaluated species. The table also identifies each species' MSCS goal and the likelihood that CALFED may affect that species. Species goals are discussed in Chapter 3, and Chapter 4 discusses the determination of the potential for CALFED effects on species.

Criteria for Developing the Preliminary Species List

The preliminary species list includes special-status species known to occur or with potential to occur in the MSCS Focus Area (i.e., the Ecosystem Restoration Program's [ERP's] 14 ecological management zones and 12 potential reservoir sites). The preliminary list was developed using the criteria described below.

Special-status species are species having some form of endangerment or concern status. These species are:

- listed as threatened or endangered under the federal Endangered Species Act (FESA);
- listed as threatened or endangered under the California Endangered Species Act (CESA);
- listed as rare under the California Native Plant Protection Act;
- proposed for federal listing under the FESA;
- California candidates under CESA;
- federal candidates under FESA;
- California fully protected species or specified birds;
- California species of special concern (CSC);
- California Native Plant Society (CNPS) List 1A, 1B, 2, or 3; or
- other species of concern to CALFED.

The determination that a species has the potential to occur in the MSCS focus area was based on the species' known range and the presence of suitable habitat within the MSCS focus area.

Species Evaluated in the Multi-Species Conservation Strategy

The preliminary species list was reduced to the list of species to be evaluated in the MSCS by application of the following criteria:

- the species is federally or California-listed as rare, threatened, or endangered, or is a California fully protected species; or
- the species could become federally or California-listed as threatened or endangered during the term of CALFED implementation, and CALFED actions could affect the species, or
- CALFED actions could affect a substantial portion of the species' range or important habitat, and CALFED actions could affect these species.

Species considered to have the potential to become federally or California-listed as threatened or endangered during the term of CALFED implementation are those that are:

- proposed for federal listing, or
- California candidates, or
- federal candidates, or
- CSC (each species considered individually for inclusion—see Decision Criteria), or
- specified birds (each species considered individually for inclusion—see Decision Criteria), or
- CNPS List 1, 2, and 3 (each species considered individually for inclusion—see Decision Criteria), or
- other species of concern (each species considered individually for inclusion—see Decision Criteria).

CSC, specified birds, CNPS Lists 1–3, and other species of concern are included if CALFED actions could affect a substantial portion of the species' range or important habitat or if the species is rare or its distribution is limited.

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|----------------------------|---------------------------------|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| | | | | | | | | |
| Federally Listed as Endangered or Threatened | | | | | | | | |
| Mammals | | | | | | | | |
| m | Giant kangaroo rat | <i>Dipodomys ingens</i> | E | CE | - | X | | L |
| r | San Joaquin Valley woodrat | <i>Neotoma fuscipes riparia</i> | E | CSC | - | X | | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|---------------------------------------|--|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| Federally Listed as Endangered or Threatened (continued) | | | | | | | | |
| Mammals (continued) | | | | | | | | |
| r | Salt marsh harvest mouse | <i>Reithrodontomys raviventris</i> | E | CE/FP | - | X | | L |
| r | Riparian brush rabbit | <i>Sylvilagus bachmani riparius</i> | E | CE | - | X | | L |
| m | San Joaquin kit fox | <i>Vulpes macrotis mutica</i> | E | CT | - | X | | L |
| Birds | | | | | | | | |
| m | Aleutian Canada goose | <i>Branta canadensis leucopareia</i> | T | - | - | X | | L |
| m | Bald eagle | <i>Haliaeetus leucocephalus</i> | T/PR | CE/FP | - | X | | L |
| m | California brown pelican | <i>Pelecanus occidentalis californicus</i> | E | CE/FP | - | | X1 | L |
| r | California clapper rail | <i>Rallus longirostris obsoletus</i> | E | CE/FP | - | X | | L |
| m | California condor | <i>Gymnogyps californianus</i> | E | CE/FP | - | | X1 | L |
| m | California least tern | <i>Sterna antillarum browni</i> | E | CE/FP | - | X | | L |
| r | Least Bell's vireo | <i>Vireo bellii pusillus</i> | E | CE | - | X | | L |
| m | Northern spotted owl | <i>Strix occidentalis caurina</i> | T | - | - | | X2 | L |
| | Northern spotted owl critical habitat | <i>Strix occidentalis caurina</i> critical habitat | | | | | | |
| m | Western snowy plover | <i>Charadrius alexandrinus nivosus</i> | T | CSC | - | X | | L |
| Reptiles | | | | | | | | |
| m | Alameda whipsnake | <i>Masticophis lateralis euryxanthus</i> | T | CT | - | X | | L |
| m | Blunt-nosed leopard lizard | <i>Gambelia sila</i> | E | CE/FP | - | X | | L |
| r | Giant garter snake | <i>Thamnophis gigas</i> | T | CT | - | X | | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|--|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| Federally Listed as Endangered or Threatened (continued) | | | | | | | | |
| Amphibians | | | | | | | | |
| m | California red-legged frog | <i>Rana aurora draytonii</i> | T | CSC | - | X | | L |
| Fish | | | | | | | | |
| m | Central California Coast steelhead evolutionarily significant unit (ESU) | <i>Oncorhynchus mykiss</i> | T | - | - | X | | L |
| | Central California Coast steelhead ESU critical habitat | <i>Oncorhynchus mykiss</i> critical habitat | | | | | | |
| R | Central Valley steelhead ESU | <i>Oncorhynchus mykiss</i> (cv) | T | - | - | X | | L |
| | Central Valley steelhead ESU critical habitat | <i>Oncorhynchus mykiss</i> (cv) critical habitat | | | | | | |
| R | Central Valley spring-run chinook salmon ESU | <i>Oncorhynchus tshawytscha</i> (sr) | T | CT | - | X | | L |
| | Central Valley spring-run chinook salmon ESU critical habitat | <i>Oncorhynchus tshawytscha</i> (sr) critical habitat | | | | | | |
| R | Delta smelt | <i>Hypomesus transpacificus</i> | T | CT | - | X | | L |
| | Delta smelt critical habitat | <i>Hypomesus transpacificus</i> critical habitat | | | | | | |
| R | Sacramento splittail | <i>Pogonichthys macrolepidotus</i> | T | CSC | - | X | | L |
| m | Tidewater goby | <i>Eucyclogobius newberryi</i> | E | CSC | - | | X2 | L |
| R | Sacramento River winter-run chinook salmon ESU | <i>Oncorhynchus tshawytscha</i> (wr) | E | CE | - | X | | L |
| | Sacramento River winter-run chinook salmon ESU critical habitat | <i>Oncorhynchus tshawytscha</i> (wr) critical habitat | | | | | | |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|--|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| Federally Listed as Endangered or Threatened (continued) | | | | | | | | |
| Invertebrates | | | | | | | | |
| m | California freshwater shrimp | <i>Syncaris pacifica</i> | E | CE | - | X | | L |
| m | Callippe silverspot | <i>Speyeria callippe callippe</i> | E | - | - | | X2 | L |
| m | Conservancy fairy shrimp | <i>Branchinecta conservatio</i> | E | - | - | X | | L |
| r | Delta green ground beetle | <i>Elaphrus viridis</i> | T | - | - | X | | L |
| | Delta green ground beetle critical habitat | <i>Elaphrus viridis</i> critical habitat | | | | | | |
| R | Lange's metalmark | <i>Apodemia mormo langei</i> | E | - | - | X | | L |
| m | Longhorn fairy shrimp | <i>Branchinecta longiantenna</i> | E | - | - | | X2 | L |
| R | Valley elderberry longhorn beetle | <i>Desmocerus californicus dimorphus</i> | T | - | - | X | | L |
| | Valley elderberry longhorn beetle critical habitat | <i>Desmocerus californicus dimorphus</i> critical habitat | | | | | | |
| m | Vernal pool fairy shrimp | <i>Branchinecta lynchi</i> | T | - | - | X | | L |
| m | Vernal pool tadpole shrimp | <i>Lepidurus packardi</i> | E | - | - | X | | L |
| Plants | | | | | | | | |
| m | Sonoma alopecurus | <i>Alopecurus aequalis</i> var. <i>sonomensis</i> | E | - | 1B | | X2 | L |
| m | Large-flowered fiddleneck | <i>Amsinckia grandiflora</i> | E | CE | 1B | X | | L |
| | Large-flowered fiddleneck critical habitat | <i>Amsinckia grandiflora</i> critical habitat | | | | | | |
| m | Ione manzanita | <i>Arctostaphylos myrtifolia</i> | T | - | 1B | | X2 | L |
| m | Pallid manzanita | <i>Arctostaphylos pallida</i> | T | CE | 1B | | X2 | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|-----------------------------|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| Federally Listed as Endangered or Threatened (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| m | Clara Hunt's milkvetch | <i>Astragalus clarianus</i> | E | CT | 1B | | X2 | L |
| m | Sonoma sunshine | <i>Blennosperma bakeri</i> | E | CE | 1B | | X2 | L |
| m | Chinese Camp brodiaea | <i>Brodiaea pallida</i> | T | CE | 1B | X | | L |
| m | Tiburon Mariposa lily | <i>Calochortus tiburonensis</i> | T | CT | 1B | | X2 | L |
| m | Stebbins' morning-glory | <i>Calystegia stebbinsii</i> | E | CE | 1B | | X2 | L |
| m | San Benito evening-primrose | <i>Camissonia benitensis</i> | T | - | 1B | | X2 | L |
| m | White sedge | <i>Carex albida</i> | E | CE | 1B | | X2 | L |
| m | Tiburon Indian paintbrush | <i>Castilleja affinis</i> ssp. <i>neglecta</i> | E | CT | 1B | | X2 | L |
| m | Succulent owl's-clover | <i>Castilleja campestris</i> ssp. <i>succulenta</i> | T | CE | 1B | X | | L |
| m | Pine Hill ceanothus | <i>Ceanothus roderickii</i> | E | R | 1B | | X2 | L |
| m | Hoover's spurge | <i>Chamaesyce hooveri</i> | T | - | 1B | X | | L |
| m | Sonoma spineflower | <i>Chorizanthe valida</i> | E | CE | 1B | | X2 | L |
| R | Suisun thistle | <i>Cirsium hydrophilum</i> var. <i>hydrophilum</i> | E | - | 1B | X | | L |
| R | Soft bird's-beak | <i>Cordylanthus mollis</i> ssp. <i>mollis</i> | E | R | 1B | X | | L |
| m | Palmate-bracted bird's-beak | <i>Cordylanthus palmatus</i> | E | CE | 1B | X | | L |
| m | Baker's larkspur | <i>Delphinium bakeri</i> | E | R | 1B | | X2 | L |
| m | Yellow larkspur | <i>Delphinium luteum</i> | E | R | 1B | | X2 | L |
| m | Hoover's eriastrum | <i>Eriastrum hooveri</i> | T | - | - | X | | L |
| m | Ione buckwheat | <i>Eriogonum apricum</i> var. <i>apricum</i> | E | CE | 1B | | X2 | L |
| m | Loch Lomond button-celery | <i>Eryngium constancei</i> | E | CE | 1B | | X2 | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|---|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| Federally Listed as Endangered or Threatened (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| R | Contra Costa wallflower | <i>Erysimum capitatum</i> ssp. <i>angustatum</i> | E | CE | 1B | X | | L |
| | Contra Costa wallflower critical habitat | <i>Erysimum capitatum</i> ssp. <i>angustatum</i> critical habitat | | | | | | |
| m | Pine Hill flannelbush | <i>Fremontodendron decumbens</i> | E | R | 1B | | X2 | L |
| m | El Dorado bedstraw | <i>Galium californicum</i> ssp. <i>sierrae</i> | E | R | 1B | | X2 | L |
| m | Marin western flax | <i>Hesperolinon congestum</i> | T | CT | 1B | | X2 | L |
| m | Contra Costa goldfields | <i>Lasthenia conjugens</i> | E | - | 1B | X | | L |
| m | San Joaquin woollythreads | <i>Lembertia congdonii</i> | E | - | 1B | X | | L |
| m | Pitkin Marsh lily | <i>Lilium pardalinum</i> ssp. <i>pitkinense</i> | E | CE | 1B | | X2 | L |
| m | Butte County meadowfoam | <i>Limnanthes floccosa</i> ssp. <i>californica</i> | E | CE | 1B | | X2 | L |
| m | Sebastopol meadowfoam | <i>Limnanthes vinculans</i> | E | CE | 1B | | X2 | L |
| m | Few-flowered navarretia | <i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> | E | CT | 1B | | X2 | L |
| m | Many-flowered navarretia | <i>Navarretia leucocephala</i> ssp. <i>plieantha</i> | E | E | 1B | | X2 | L |
| m | Colusa grass | <i>Neostapfia colusana</i> | T | CE | 1B | X | | L |
| R | Antioch Dunes evening-primrose | <i>Oenothera deltoides</i> ssp. <i>howellii</i> | E | CE | 1B | X | | L |
| | Antioch Dunes evening-primrose critical habitat | <i>Oenothera deltoides</i> ssp. <i>howellii</i> critical habitat | | | | | | |
| m | San Joaquin Valley orcutt grass | <i>Orcuttia inaequalis</i> | T | CE | 1B | X | | L |
| m | Hairy orcutt grass | <i>Orcuttia pilosa</i> | E | CE | 1B | X | | L |
| m | Slender orcutt grass | <i>Orcuttia tenuis</i> | T | CE | 1B | X | | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|-----------------------------------|--|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| Federally Listed as Endangered or Threatened (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| m | Sacramento orcutt grass | <i>Orcuttia viscida</i> | E | CE | 1B | X | | L |
| m | White-rayed pentachaeta | <i>Pentachaeta bellidiflora</i> | E | CE | 1B | | X2 | L |
| m | Calistoga popcornflower | <i>Plagiobothrys strictus</i> | E | CT | 1B | | X2 | L |
| m | Napa blue grass | <i>Poa napensis</i> | E | CE | 1B | | X2 | L |
| m | Hartweg's golden sunburst | <i>Pseudobahia bahiifolia</i> | E | CE | 1B | X | | L |
| m | San Joaquin adobe sunburst | <i>Pseudobahia peirsonii</i> | T | CE | 1B | | X2 | L |
| m | Layne's ragwort | <i>Senecio layneae</i> | T | R | 1B | X | | L |
| m | Kenwood Marsh checkerbloom | <i>Sidalcea oregana</i> ssp. <i>valida</i> | E | CE | 1B | | X2 | L |
| m | Tiburon jewelflower | <i>Streptanthus niger</i> | E | CE | 1B | | X2 | L |
| m | California seablite | <i>Suaeda californica</i> | E | - | 1B | X | | L |
| m | Showy Indian clover | <i>Trifolium amoenum</i> | E | - | 1B | | X2 | L |
| m | Greene's tuctoria | <i>Tuctoria greenei</i> | E | R | 1B | X | | L |
| r | Crampton's tuctoria | <i>Tuctoria mucronata</i> | E | CE | 1B | X | | L |
| m | California vervain | <i>Verbena californica</i> | T | CT | 1B | | X2 | L |
| California Listed as Endangered, Threatened, Rare, or Fully Protected and Not Federally Listed | | | | | | | | |
| Mammals | | | | | | | | |
| m | California wolverine | <i>Gulo gulo luteus</i> | - | CT/FP | SC | | X2 | L |
| m | Nelson's antelope ground squirrel | <i>Ammospermophilus nelsoni</i> | - | CT | SC | X | | L |
| m | Ringtail | <i>Bassariscus astutus</i> | - | FP | - | X | | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|------------------------------|---|---------------------|--------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Listed as Endangered, Threatened, Rare, or Fully Protected and Not Federally Listed (continued) | | | | | | | | |
| Birds | | | | | | | | |
| m | American peregrine falcon | <i>Falco peregrinus anatum</i> | - | CE/FP | - | X | | L |
| r | Bank swallow | <i>Riparia riparia</i> | - | CT | - | X | | L |
| r | California black rail | <i>Laterallus jamaicensis coturniculus</i> | - | CT/FP | SC | X | | L |
| m | Golden eagle | <i>Aquila chrysaetos</i> | PR | CSC/FP | - | | X1 | L |
| r | Greater sandhill crane | <i>Grus canadensis tabida</i> | - | CT/FP | - | X | | L |
| r | Little willow flycatcher | <i>Empidonax traillii brewsteri</i> | - | - | SC | X | | L |
| r | Swainson's hawk | <i>Buteo swainsoni</i> | - | CT | - | X | | L |
| r | Western yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | - | CE | - | X | | L |
| m | White-tailed kite | <i>Elanus leucurus</i> | - | FP | - | X | | L |
| Amphibians | | | | | | | | |
| m | Limestone salamander | <i>Hydromantes brunus</i> | - | CT/FP | SC | | X2 | L |
| m | Shasta salamander | <i>Hydromantes shastae</i> | - | CT | SC | X | | L |
| Fish | | | | | | | | |
| m | Rough sculpin | <i>Cottus Asperimus</i> | - | CT/FP | SC | X | | L |
| Plants | | | | | | | | |
| m | Baker's manzanita | <i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i> | - | R | 1B/SC | | X2 | L |
| m | Indian Valley brodiaea | <i>Brodiaea coronaria</i> ssp. <i>rosea</i> | - | CE | 1B | X | | L |
| m | Tree-anenome | <i>Carpenteria californica</i> | - | CT | 1B/SC | X | | L |
| m | Mason's ceanothus | <i>Ceanothus masonii</i> | - | R | 1B/SC | | X2 | L |
| m | Mt. Diablo bird's-beak | <i>Cordylanthus nidularius</i> | - | R | 1B/SC | | X2 | L |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|--|---|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Listed as Endangered, Threatened, Rare, or Fully Protected and Not Federally Listed (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| m | Irish Hill buckwheat | <i>Eriogonum apricum</i> var. <i>prostratum</i> | - | CE | 1B | | X2 | L |
| r | Delta coyote-thistle | <i>Eryngium racemosum</i> | - | CE | 1B/SC | X | | L |
| m | Boggs Lake hedge-hyssop | <i>Gratiola heterosepala</i> | - | CE | 1B | X | | L |
| m | Santa Cruz tarplant | <i>Holocarpha macradenia</i> | PT | CE | 1B | | X2 | L |
| R | Mason’s lilaeopsis | <i>Lilaeopsis masonii</i> | - | R | 1B/SC | X | | L |
| m | North Coast semaphore grass | <i>Pleuropogon hooverianus</i> | - | R | 1B/SC | | X2 | L |
| m | Rock sanicle | <i>Sanicula saxatilis</i> | - | R | 1B/SC | X | | L |
| m | Marin checkerbloom | <i>Sidalcea hickmanii</i> ssp. <i>viridis</i> | - | - | 1B/SC | | X2 | L |
| Federally Proposed and Not California Listed | | | | | | | | |
| Birds | | | | | | | | |
| m | Mountain plover | <i>Charadrius montanu</i> | PT | CSC | - | X | | P |
| Federal Candidate and Not California Listed | | | | | | | | |
| Amphibian | | | | | | | | |
| m | California tiger salamander | <i>Ambystoma californiense</i> | C | CSC | - | X | | P |
| Fish | | | | | | | | |
| R | Central Valley fall-/late-fall-run chinook salmon ESU | <i>Oncorhynchus tshawytscha</i> (fr) | C | CSC | - | X | | P |
| m | McCloud River redband trout | <i>Oncorhynchus mykiss</i> ssp 2 | C | CSC | - | X | | P |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|------------------------------------|--|---------------------|--------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 | | | | | | | | |
| Mammals | | | | | | | | |
| m | Greater western mastiff-bat | <i>Eumops perotis californicus</i> | - | CSC | SC | X | | A |
| r | San Pablo California vole | <i>Microtus californicus sanpabloensis</i> | - | CSC | - | X | | A |
| R | Suisun ornate shrew | <i>Sorex ornatus sinuosus</i> | - | CSC | SC | X | | B |
| Birds | | | | | | | | |
| m | Black tern | <i>Chlidonias niger</i> | - | CSC | SC | X | | B |
| m | California gull | <i>Larus californicus</i> | - | CSC | - | X | | B |
| r | California yellow warbler | <i>Dendroica petechia brewsteri</i> | - | CSC | - | X | | A |
| m | Cooper's hawk | <i>Accipiter cooperii</i> | - | CSC | - | X | | A |
| m | Double-crested cormorant (rookery) | <i>Phalacrocorax auritus</i> | - | CSC | - | X | | A |
| m | Long-billed curlew | <i>Numenius americanus</i> | - | CSC | - | X | | A |
| m | Long-eared owl | <i>Asio otus</i> | - | CSC | - | X | | B |
| m | Northern harrier | <i>Circus cyaneus</i> | - | CSC | - | X | | A |
| m | Osprey | <i>Pandion haliaetus</i> | - | CSC/SB | - | X | | A |
| r | Saltmarsh common yellowthroat | <i>Geothlypis trichas sinuosa</i> | - | CSC | SC | X | | A |
| R | San Pablo song sparrow | <i>Melospiza melodia samuelis</i> | - | CSC | SC | X | | A |
| m | Short-eared owl | <i>Asio flammeus</i> | - | CSC | - | X | | B |
| R | Suisun song sparrow | <i>Melospiza melodia maxillaris</i> | - | CSC | SC | X | | A |
| m | Tricolored blackbird | <i>Agelaius tricolor</i> | - | CSC | SC | X | | A |
| m | Western burrowing owl | <i>Athene cunicularia hypugea</i> | - | CSC | SC | X | | A |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|-----------------------------|---------------------------------------|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 (continued) | | | | | | | | |
| Birds (continued) | | | | | | | | |
| m | Western least bittern | <i>Ixobrychus axilis</i> | - | CSC | SC | X | | A |
| m | White-faced ibis | <i>Plegadis chihi</i> | - | CSC | SC | X | | A |
| m | Yellow-breasted chat | <i>Icteria virens</i> | - | CSC | - | X | | A |
| Reptiles | | | | | | | | |
| m | San Joaquin whipsnake | <i>Masticophis flagellum ruddocki</i> | - | CSC | SC | X | | B |
| m | Western pond turtle | <i>Clemmys marmorata</i> | - | CSC | SC | X | | A |
| Amphibians | | | | | | | | |
| m | Foothill yellow-legged frog | <i>Rana boylei</i> | - | CSC | SC | X | | A |
| m | Western spadefoot | <i>Scaphiopus hammondi</i> | - | CSC | SC | X | | A |
| Fish | | | | | | | | |
| R | Green sturgeon | <i>Acipenser medirostris</i> | - | CSC | - | X | | B |
| m | Hardhead | <i>Mylopharodon conocephalus</i> | - | CSC | - | X | | B |
| R | Longfin smelt | <i>Spirinchus thaleichthys</i> | - | CSC | - | X | | B |
| r | Sacramento perch | <i>Archoplites interruptus</i> | - | CSC | SC | X | | B |
| Invertebrates | | | | | | | | |
| m | Monarch butterfly (roost) | <i>Danaus plexippus</i> | - | - | - | X | | B |
| Plants | | | | | | | | |
| m | Sharsmith's onion | <i>Allium sharsmithae</i> | - | - | 1B | X | | B |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|---------------------------|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| m | Rawhide Hill onion | <i>Allium tuolumnense</i> | - | - | 1B | X | | B |
| m | Dimorphic snapdragon | <i>Antirrhinum subcordatum</i> | - | - | 1B | X | | B |
| m | Mt. Diablo manzanita | <i>Arctostaphylos auriculata</i> | - | - | 1B | X | | B |
| m | Klamath manzanita | <i>Arctostaphylos klamathensis</i> | - | - | 1B/SC | X | | B |
| m | Contra Costa manzanita | <i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i> | - | - | 1B | X | | B |
| R | Suisun Marsh aster | <i>Aster lentus</i> | - | - | 1B/SC | X | | A |
| m | Big Bear Valley woollypod | <i>Astragalus leucolobus</i> | - | - | 1B/SC | X | | B |
| m | Jepson's milkvetch | <i>Astragalus rattanii</i> var. <i>jepsonianus</i> | - | - | 1B | X | | B |
| m | Ferris' milkvetch | <i>Astragalus tener</i> var. <i>ferrisiae</i> | - | - | 1B/SC | X | | A |
| r | Alkali milkvetch | <i>Astragalus tener</i> var. <i>tener</i> | - | - | 1B/SC | X | | A |
| m | Heartscale | <i>Atriplex cordulata</i> | - | - | 1B/SC | X | | A |
| m | Brittlescale | <i>Atriplex depressa</i> | - | - | 1B/SC | X | | A |
| m | San Joaquin spearscale | <i>Atriplex joaquiniana</i> | - | - | 1B/SC | X | | A |
| m | Lesser saltscale | <i>Atriplex minuscula</i> | - | - | 1B/SC | X | | A |
| m | Vernal pool smallscale | <i>Atriplex persistens</i> | - | - | 1B | X | | B |
| m | Lost Hills crownscale | <i>Atriplex vallicola</i> | - | - | 1B/SC | X | | A |
| m | Big tarplant | <i>Blepharizonia plumosa</i> ssp. <i>plumosa</i> | - | - | 1B | X | | B |
| m | Mt. Diablo fairy lantern | <i>Calochortus pulchellus</i> | - | - | 1B | X | | B |
| m | Sharsmith's harebell | <i>Campanula sharsmithiae</i> | - | - | 1B/SC | X | | B |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|----------------------------------|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| r | Bristly sedge | <i>Carex comosa</i> | - | - | 2 | X | | B |
| m | Dwarf soaproot | <i>Chlorogalum pomeridianum</i> var. <i>minus</i> | - | - | 1B | X | | B |
| m | Slough thistle | <i>Cirsium crassicaule</i> | - | - | 1B/SC | X | | A |
| m | Mariposa clarkia | <i>Clarkia biloba</i> ssp. <i>australis</i> | - | - | 1B | X | | B |
| m | Shasta clarkia | <i>Clarkia borealis</i> spp. <i>arida</i> | - | - | 1B/SC | X | | B |
| m | Beaked clarkia | <i>Clarkia rostrata</i> | - | - | 1B/SC | X | | B |
| r | Point Reyes bird's-beak | <i>Cordylanthus maritimus</i> ssp. <i>palustris</i> | - | - | 1B/SC | X | | A |
| m | Hispid bird's-beak | <i>Cordylanthus mollis</i> ssp. <i>hispidus</i> | - | - | 1B/SC | X | | A |
| m | Mt. Hamilton coreopsis | <i>Coreopsis hamiltonii</i> | - | - | 1B/SC | X | | B |
| m | Silky cryptantha | <i>Cryptantha crinita</i> | - | - | 1B/SC | X | | B |
| m | Hospital Canyon larkspur | <i>Delphinium californicum</i> ssp. <i>interius</i> | - | - | 1B/SC | X | | B |
| m | Recurved larkspur | <i>Delphinium recurvatum</i> | - | - | 1B/SC | X | | B |
| m | Four-angled spikerush | <i>Eleocharis quadrangulata</i> | - | - | 2 | X | | A |
| m | Brandegee's eriastrum | <i>Eriastrum brandegeae</i> | - | - | 1B/SC | X | | B |
| m | Ben Lomond buckwheat | <i>Eriogonum nudum</i> var. <i>decurrens</i> | - | - | 1B | X | | B |
| m | Spiny-sepaled button-celery | <i>Eryngium spinosepalum</i> | - | - | 1B/SC | X | | A |
| m | Diamond-petaled California poppy | <i>Eschscholzia rhombipetala</i> | - | - | 1A/SC | X | | B |
| m | Adobe-lily | <i>Fritillaria pluriflora</i> | - | - | 1B/SC | X | | B |
| m | Diablo helianthella | <i>Helianthella castanea</i> | - | - | 1B/SC | X | | B |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|--|--|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| m | Hall's tarplant | <i>Hemizonia halliana</i> | - | - | 1B | X | | B |
| m | Congdon's tarplant | <i>Hemizonia parryi</i> ssp. <i>congdonii</i> | - | - | 1B/SC | X | | A |
| m | Brewer's western flax | <i>Hesperolinon breweri</i> | - | - | 1B/SC | X | | B |
| m | Drymaria-like western flax | <i>Hesperolinon drymarioides</i> | - | - | 1B/SC | X | | B |
| m | Napa western flax | <i>Hesperolinon serpentinum</i> | - | - | 1B | X | | B |
| m | Tehama County western flax | <i>Hesperolinon tehamense</i> | - | - | 1B/SC | X | | B |
| m | Rose-mallow | <i>Hibiscus lasiocarpus</i> | - | - | 2 | X | | A |
| m | Parry's horkelia | <i>Horkelia parryi</i> | - | - | 1B/SC | X | | B |
| m | Carquinez goldenbush | <i>Isocoma arguta</i> | - | - | 1B/SC | X | | A |
| r | Northern California black walnut (native stands) | <i>Juglans californica</i> var. <i>hindsii</i> | - | - | 1B/SC | X | | A |
| m | Ahart's dwarf rush | <i>Juncus leiospermus</i> var. <i>ahartii</i> | - | - | 1B/SC | X | | B |
| r | Delta tule pea | <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> | - | - | 1B/SC | X | | A |
| m | Pale-yellow layia | <i>Layia heterotricha</i> | | | 1B/SC | X | | B |
| m | Legenere | <i>Legenere limosa</i> | - | - | 1B/SC | X | | B |
| m | Panoche peppergrass | <i>Lepidium jaredii</i> ssp. <i>album</i> | - | - | 1B/SC | X | | A |
| m | Heckard's peppergrass | <i>Lepidium latipes</i> var. <i>heckardii</i> | - | - | 1B | X | | B |
| m | Saw-toothed lewisia | <i>Lewisia serrata</i> | - | - | 1B/SC | X | | B |
| m | Bellinger's meadowfoam | <i>Limnanthes floccosa</i> ssp. <i>bellingeriana</i> | - | - | 1B/SC | X | | B |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|---------------------------|--|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| r | Delta mudwort | <i>Limosella subulata</i> | - | - | 2 | X | | A |
| m | Mt. Tedoc linanthus | <i>Linanthus nuttallii</i> ssp. <i>howellii</i> | - | - | 1B/SC | X | | B |
| m | Madera linanthus | <i>Linanthus serrulatus</i> | - | - | 1B | X | | B |
| m | Congdon's lomatium | <i>Lomatium congdonii</i> | - | - | 1B/SC | X | | B |
| m | Red-flowered lotus | <i>Lotus rubriflorus</i> | - | - | 1B/SC | X | | B |
| m | Shaggyhair lupine | <i>Lupinus spectabilis</i> | - | - | 1B/SC | X | | B |
| m | Showy madia | <i>Madia radiata</i> | - | - | 1B | X | | B |
| m | Hall's bush mallow | <i>Malacothamnus hallii</i> | - | - | 1B | X | | B |
| m | Pincushion navarretia | <i>Navarretia myersii</i> | - | - | 1B | X | | B |
| m | Shasta snow-wreath | <i>Neviusia cliftonii</i> | - | - | 1B | X | | A |
| m | Ahart's paronychia | <i>Paronychia ahartii</i> | - | - | 1B/SC | X | | B |
| m | Thread-leaved beardtongue | <i>Penstemon filiformis</i> | - | - | 1B/SC | X | | B |
| m | Merced phacelia | <i>Phacelia ciliata</i> var. <i>opaca</i> | - | - | 1B/SC | X | | B |
| m | Mt. Diablo phacelia | <i>Phacelia phacelioides</i> | - | - | 1B/SC | X | | B |
| m | Eel-grass pondweed | <i>Potamogeton zosteriformis</i> | - | - | 2 | X | | A |
| m | California beaked-rush | <i>Rhynchospora californica</i> | - | - | 1B/SC | X | | A |
| m | Sanford's arrowhead | <i>Sagittaria sanfordii</i> | - | - | 1B/SC | X | | A |
| m | Marsh skullcap | <i>Scutellaria galericulata</i> | - | - | 2 | X | | B |
| m | Mad-dog skullcap | <i>Scutellaria lateriflora</i> | - | - | 2 | X | | A |
| m | Red Hills ragwort | <i>Senecio clevelandii</i> var. <i>heterophyllus</i> | - | - | 1B | X | | B |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|-------------------------------------|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| California Species of Special Concern or CNPS List 1 or 2 (continued) | | | | | | | | |
| Plants (continued) | | | | | | | | |
| m | Marsh checkerbloom | <i>Sidalcea oregana</i> ssp. <i>hydrophila</i> | - | - | 1B/SC | X | | A |
| m | English Peak greenbriar | <i>Smilax jamesii</i> | - | - | 1B | X | | A |
| m | Most beautiful jewel-flower | <i>Streptanthus albidus</i> ssp. <i>peramoensus</i> | - | - | 1B | X | | B |
| m | Mt. Hamilton jewelflower | <i>Streptanthus callistus</i> | - | - | 1B/SC | X | | B |
| m | Mt. Diablo jewelflower | <i>Streptanthus hispidus</i> | - | - | 1B/SC | X | | B |
| m | Arburua Ranch jewelflower | <i>Streptanthus insignis</i> ssp. <i>lyonii</i> | - | - | 1B/SC | X | | B |
| Other Species of Concern or CNPS List 3 | | | | | | | | |
| Mammals | | | | | | | | |
| m | Merced kangaroo rat | <i>Dipodomys heermanni dixonii</i> | - | - | SC | X | | A |
| Birds | | | | | | | | |
| m | Black-crowned night heron (rookery) | <i>Nycticorax nycticorax</i> | - | - | SC | X | | A |
| m | Grasshopper sparrow | <i>Ammodramus savannarum</i> | - | - | SC | X | | B |
| m | Great blue heron (rookery) | <i>Ardea herodias</i> | - | - | SC | X | | A |
| m | Great egret (rookery) | <i>Casmerodius albus</i> | - | SB | SC | X | | A |
| m | Snowy egret (rookery) | <i>Egretta thula</i> | - | SB | SC | X | | A |
| Invertebrates | | | | | | | | |
| m | Mid-valley fairy shrimp | <i>Brachinecta</i> n. sp. “mid-valley” | - | - | SC | X | | A |
| m | Shasta sideband | <i>Monadenia troglodytes</i> | - | - | SC | X | | B |

Table 2-2. Continued

| Species Goals ¹ | Common Name | Scientific Name | Status ² | | | Potential Effects of CALFED Actions ³ | | |
|---|------------------------------|---|---------------------|-------|-------|--|---------------------------|--------------------------------|
| | | | Federal | State | Other | May be Affected | Not Likely to be Affected | Decision Criteria ⁴ |
| | | | | | | | | |
| Other Species of Concern or CNPS List 3 (continued) | | | | | | | | |
| Plants | | | | | | | | |
| m | Henderson's bent grass | <i>Agrostis hendersonii</i> | - | - | 3/SC | X | | A |
| m | San Antonio Hills monardella | <i>Monardella antonina</i> ssp. <i>antonina</i> | - | - | 3 | X | | A |
| m | Marin knotweed | <i>Polygonum marinense</i> | - | - | 3/SC | X | | A |

Notes:

¹ Species Goals:

- R = Recovery. Recover species' populations within the MSCS focus area to levels that ensure the species' long-term survival in nature.
r = Contribute to recovery. Implement some of the actions deemed necessary to recover species' populations within the MSCS focus area.
m = Maintain. Ensure that any adverse effects on the species that could be associated with implementation of CALFED actions will be fully offset through implementation of actions beneficial to the species.

² Status:

Federal

- E = Listed as endangered under FESA.
T = Listed as threatened under FESA.
PE = Proposed for listing as endangered under FESA.
PT = Proposed for listing as threatened under FESA.
C = Candidate for listing under FESA.
PR = Protected under the Bald and Golden Eagle Protection Act.

State

- CE = Listed as endangered under CESA.
- CT = Listed as threatened under CESA.
- CCE = Candidate for listing as endangered under CESA.
- CCT = Candidate for listing as threatened under CESA.
- R = Listed as rare under California Native Plant Protection Act.
- CSC = California species of special concern.
- FP = Fully protected under California Fish and Game Code.
- SB = Specified birds under California Fish and Game Code.

Other

- 1A = CNPS List 1A.
- 1B = CNPS List 1B.
- 2 = CNPS List 2.
- 3 = CNPS List 3.
- SC = Other species of concern identified by CALFED.

³ Potential Effects of CALFED Actions on Evaluated Species:

May be Affected:

- X = CALFED actions may result in take of federally or State-protected species: species that are associated with habitat types or occur at specific locations that may be adversely or beneficially affected by CALFED actions depending on where CALFED actions would be implemented, or species that are rare or transient in the MSCS focus area and may be affected by CALFED actions depending on when or where CALFED actions would be implemented.

Not Likely to be Affected:

- X1 = CALFED actions do not affect the species, because habitat is not limiting and the species is mobile.
- X2 = Species occurs in areas that would not be affected by CALFED actions.

⁴ Decision Criteria:

- A = Included because CALFED actions could affect a substantial portion of the species' range or important habitat.
- B = Included because of limited distribution or rarity of the species.
- L = Included because species is federally or State-listed as endangered, threatened, rare, or fully protected.
- P = Included because of the immediate potential to become federally or State-listed.